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| 10/518,415                  | 08/16/2005      | Carlo Antonio Giovanni D'Agnolo | 72998-012200        | 9943             |
| Charles Berma               | 7590 07/30/2007 |                                 | EXAM                | INER             |
| Greenberg Traurig           |                 | ABRISHAMKAR, KAVEH              |                     |                  |
| 2450 Colorado<br>Suite 400E | Avenue          |                                 | ART UNIT            | PAPER NUMBER     |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|  |   | Application No.  | Applicant(s)  |  |  |  |
|--|---|--|---|--|--|--|
| Office Action Summary  |   | 10/518,415   | D'AGNOLO, CARLO ANTONIO<br>GIOVANNI   |  |  |  |
|  |   | Examiner   | Art Unit  |  |  |  |
|  |   | Kaveh Abrishamkar  | 2131  |  |  |  |
| Period for   | The MAILING DATE of this communication Reply  | appears on the cover sheet with the o  | correspondence address  |  |  |  |
| WHICH - Extens after S - If NO p - Failure Any re  | RTENED STATUTORY PERIOD FOR REHEVER IS LONGER, FROM THE MAILING ions of time may be available under the provisions of 37 CFI (18%) MONTHS from the mailing date of this communication beriod for reply is specified above, the maximum statutory per to reply within the set or extended period for reply will, by stiply received by the Office later than three months after the maximum adjustment. See 37 CFR 1.704(b). | B DATE OF THIS COMMUNICATION R 1.136(a). In no event, however, may a reply be tire riod will apply and will expire SIX (6) MONTHS from atute, cause the application to become ABANDONE | N. nely filed the mailing date of this communication. ED (35 U.S.C. § 133). |  |  |  |
| Status   |   |  |   |  |  |  |
| 1)⊠ F  | Responsive to communication(s) filed on 1   | 6 December 2004  | •   |  |  |  |
| ·  | This action is <b>FINAL</b> . 2b)⊠ This action is non-final.  |  |   |  |  |  |
| '=   | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is   |  |   |  |  |  |
|  | closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.   |  |   |  |  |  |
| Dispositio   | n of Claims   |  | •   |  |  |  |
| 4) 🛛 (   | 4)⊠ Claim(s) <u>1-23</u> is/are pending in the application.   |  |   |  |  |  |
|  | 4a) Of the above claim(s) is/are withdrawn from consideration.  |  |   |  |  |  |
|  | 5) Claim(s) is/are allowed.   |  |   |  |  |  |
| ·  | 6)⊠ Claim(s) <u>1-23</u> is/are rejected.   |  |   |  |  |  |
|  | Claim(s) is/are objected to.  |  |   |  |  |  |
| ·  | Claim(s) are subject to restriction an  | d/or election requirement.   |   |  |  |  |
| Applicatio   | n Papers  |  |   |  |  |  |
| _  | he specification is objected to by the Exam   | niner  |   |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.   |   |  |   |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |  |   |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |  |   |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |   |  |   |  |  |  |
| Priority ur  | nder 35 U.S.C. § 119  |  |   |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul> |   |  |   |  |  |  |
| 2) Notice 3) Inform  | s) of References Cited (PTO-892) of Draftsperson's Patent Drawing Review (PTO-948) ation Disclosure Statement(s) (PTO/SB/08) No(s)/Mail Date 12/16/05.  | 4) Interview Summary Paper No(s)/Mail D 5) Notice of Informal F 6) Other:  | ate   |  |  |  |

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### **DETAILED ACTION**

1. This action is in response to the communication filed on December 16, 2004.

Claims 1-13 were originally received for consideration. Per the received preliminary amendment, claims 14-23 have been added.

2. Claims 1-23 are currently pending consideration.

### Information Disclosure Statement

3. An initialed and dated copy of Applicant's IDS form 1449, received on 12/16/2005, is attached to this Office action.

# Specification

4. The titles of the various sections do not conform to the preferred headings for the sections. For example, the preferred heading for the section entitled "Prior Art" is Background of the Invention" and the preferred heading for the section entitled "Description of embodiments" is "Detailed Description of the Invention."

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

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As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (I) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

## Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 6 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 6 claims a "computer program" which is interpreted as being software per se. The functionality of functional descriptive material is realized only when the functional descriptive material is claimed as being embodied

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on *a computer readable medium* and is claimed as executed by a computer component. The cited claim provides no tangible computer components that work in conjunction with the functional descriptive material to impart functionality and as a result the claims are not statutory because they fail the practical application requirement of § 101 by failing to provide a useful, concrete, and tangible result (see MPEP 2106 and the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility).

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6. Claim 7 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 7 claims a "carrier" which is not defined explicitly in the specification. On page 9, line 15, of the specification, it is stated "the information carrier (chip) is checked." However, this chip is not used to carry the computer program of claim 6, but the biometric information. So this disclosure of an information carrier is not interpreted to be the same as the "carrier" of claim 7.

Therefore, the carrier of claim 7 could be interpreted as being a carrier wave or a signal, which is not statutory. A signal, a form of energy, does not fall within either of the two definitions of manufacture, and thus, a signal does not fall within one of the four statutory classes of § 101 (see Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, page 57).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-2, 5-12, and 15-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Burger (U.S. Patent 6,219,439) in view of Trench (U.S. Patent Publication No. US 2005/0154877 A1).

Regarding claim 1, Burger discloses:

System for reading a document provided with machine-readable holder details and establishing whether a person presenting the document has predetermined right, which document at least contains a chip containing biometric data (column 5, lines 32-26: *user fingerprint information stored on chip*) on a holder as well as data with a predetermined relationship to the holder details, and wherein the system comprises:

a reader for reading the chip and the machine-readable holder details (Figure 1, item 12, column 6, lines 13-16: the reader "scans the user's fingerprint and compares it against the stored template of the same print on the smart card");

a memory containing details with regard to the predetermined right of the holder (column 5, lines 36-37: identification data stored in chip memory);

a biometric feature scanner (Figure 1, item 16, column 5, lines 8-13: "fingerprint scanner platen");

a processing unit that is connected to the reader, the memory and the biometric feature scanner (column 5, lines 50-58, column 6, lines 13-18: *authentication done on board reader*) and is equipped to:

receive the biometric data on the holder from the chip, from the reader (column 5, lines 34-37, column 6, lines 13-16: the fingerprint data on the chip is read and compared to the input fingerprint);

receive the biometric data on the person presenting the document from the biometric feature scanner (column 5, lines 50-51: *user places finger on fingerprint scanner*) and to compare these with the biometric data on the holder to determine whether the person presenting the document is the holder (column 5, lines 50-55: *compare input fingerprint with stored fingerprint data to determine if user is authentic*);

receive the holder details via the reader (column 5, lines 36-37: "identification data"), check the predetermined relationship between the holder details and the data (column 5, lines 50-55: *authenticating user*) and read the predetermined right of holder from the memory (column 6, lines 45-51: *wherein the user identification memory* (predetermined right) is used to determine if the user is able to gain entry);

provide a signal to indicate the predetermined right for the person presenting the document if the chip and the data are authentic, the predetermined relationship has been established and the person presenting the document is the same as the holder (column 7, lines 46-51), wherein the response (signal) is sent to a gateway indicating whether access is permitted.

Burger does not explicitly disclose that the processing unit establishes the authenticity of the chip and the data with the aid of a public key encryption technology. Trench discloses a system wherein a chip card contains a private key (Trench: Figure 2, item 104), which is used in a challenge along with a public key to determine if the chip card is authentic (Trench: paragraph 0026, lines 1-12). Burger and Trench are analogous arts as both use chip cards to authenticate a user. Trench uses this challenge system to assure that the chip card is authentic before letting the user proceed with a transaction (Trench: paragraph 0026, lines 10-11). This challenge-response using the privatepublic key technology could be used in the system of Burger after the biometric input is compared to authenticate the user. In the system of Burger, after the authentication of the user, the user identification data is read from the chip and sent to a gateway (Burger: column 6, lines 44-51). The gateway could then send a challenge to the user to verify that the chip is also authentic, as in the system of Trench, which using the method of Trench, the user can use the stored private key to respond to the challenge to verify that the chip is also authentic and allow the transaction to proceed (Trench: paragraph 0026: lines 1-12). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the public-private encryption method of Trench into the system of Burger so that a merchant "can be assured that the user is the legitimate certificate holder and that the user certificate belongs to the user" (Trench: paragraph 0026, lines 8-11) and so that the merchant can "confidently accept the chip card from the user" (Trench: paragraph 0026, lines 11-12).

Claim 2 is rejected as applied above in rejecting claim 1. Furthermore, Burger discloses:

System according to claim 1, wherein the document is a travel document (column 5, lines 43-46), wherein the smart card (document) could operate as a driver's license.

Regarding claim 5, Burger discloses:

Method for reading a document provided with machine-readable holder details and establishing whether a person presenting the document has a predetermined right, which document contains at least one chip containing biometric data (column 5, lines 32-26: user fingerprint information stored on chip) on a holder as well as data having a predetermined relationship to the holder details, and wherein the system comprises a reader for reading the chip and the machine-readable holder details (Figure 1, item 12, column 6, lines 13-16: the reader "scans the user's fingerprint and compares it against the stored template of the same print on the smart card"), a memory containing data on the predetermined right of the holder (column 5, lines 36-37: identification data stored in chip memory), a biometric feature scanner (Figure 1, item 16, column 5, lines 8-13: "fingerprint scanner platen") and a processing unit that is connected to the reader, the memory, and the biometric feature scanner (column 5, lines 50-58, column 6, lines 13-18: authentication done on board reader), wherein the method comprises the following operations:

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receipt of the biometric data on the holder from the chip (column 5, lines 34-37, column 6, lines 13-16: the fingerprint data on the chip is read and compared to the input fingerprint);

receipt of the biometric data on the person presenting the document (column 5, lines 50-51: *user places finger on fingerprint scanner*) and comparison with the biometric data on the holder to determine whether the person presenting the document is the holder (column 5, lines 50-55: *compare input fingerprint with stored fingerprint data to determine if user is authentic*);

receipt of the holder details (column 5, lines 36-37: "identification data"), checking of the specific relationship between the holder details and the data (column 5, lines 50-55: *authenticating user*) and reading the predetermined right of the holder from the memory (column 6, lines 45-51: *wherein the user identification memory* (predetermined right) is used to determine if the user is able to gain entry);

provision of a signal to indicate the predetermined right for the person presenting the document if the chip and the data are authentic, the predetermined relationship has been established and the person presenting the document is the same as the holder (column 7, lines 46-51), wherein the response (signal) is sent to a gateway indicating whether access is permitted.

Burger does not explicitly disclose establishment of the authenticity of the chip and the data with the aid of a public key encryption technology. Trench discloses a system wherein a chip card contains a private key (Trench: Figure 2, item 104), which is used

in a challenge along with a public key to determine if the chip card is authentic (Trench: paragraph 0026, lines 1-12). Burger and Trench are analogous arts as both use chip cards to authenticate a user. Trench uses this challenge system to assure that the chip card is authentic before letting the user proceed with a transaction (Trench: paragraph 0026, lines 10-11). This challenge-response using the private-public key technology could be used in the system of Burger after the biometric input is compared to authenticate the user. In the system of Burger, after the authentication of the user, the user identification data is read from the chip and sent to a gateway (Burger: column 6, lines 44-51). The gateway could then send a challenge to the user to verify that the chip is also authentic, as in the system of Trench, which using the method of Trench, the user can use the stored private key to respond to the challenge to verify that the chip is also authentic and allow the transaction to proceed (Trench: paragraph 0026; lines 1-12). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the public-private encryption method of Trench into the system of Burger so that a merchant "can be assured that the user is the legitimate certificate holder and that the user certificate belongs to the user" (Trench: paragraph 0026, lines 8-11) and so that the merchant can "confidently accept the chip card from the user" (Trench: paragraph 0026, lines 11-12).

Regarding claim 6, Burger discloses:

Computer program that can be loaded by a system for reading a document provided with machine-readable holder details and establishing whether a person

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presenting the document has a predetermined right, which document contains at least one chip containing a biometric data on a holder (column 5, lines 32-26: *user fingerprint information stored on chip*) as well as data having a predetermined relationship to the holder details, and wherein the system comprises a reader for reading the chip and the machine-readable holder details (Figure 1, item 12, column 6, lines 13-16: the reader "scans the user's fingerprint and compares it against the stored template of the same print on the smart card"), a memory containing data on the predetermined right of the holder (column 5, lines 36-37: *identification data stored in chip memory*), a biometric feature scanner and a processing unit that is connected to the reader, the memory and the biometric feature scanner (Figure 1, item 16, column 5, lines 8-13: "fingerprint scanner platen"), wherein the computer program can provide the system with the following functionality:

receipt of the biometric data on the holder from the chip (column 5, lines 34-37, column 6, lines 13-16: the fingerprint data on the chip is read and compared to the input fingerprint);

receipt of the biometric data on the person presenting the document (column 5, lines 50-51: *user places finger on fingerprint scanner*) and comparison with the biometric data on the holder to determine whether the person presenting the document is the holder (column 5, lines 50-55: *compare input fingerprint with stored fingerprint data to determine if user is authentic*);

receipt of the holder details (column 5, lines 36-37: "identification data"), checking of the specific relationship between the holder details and the data (column 5,

lines 50-55: authenticating user) and reading the predetermined right of the holder from the memory (column 6, lines 45-51: wherein the user identification memory (predetermined right) is used to determine if the user is able to gain entry);

provision of a signal to indicate the predetermined right for the person presenting the document if the chip and the data are authentic, the predetermined relationship has been established and the person presenting the document is the same as the holder (column 7, lines 46-51), wherein the response (signal) is sent to a gateway indicating whether access is permitted.

Burger does not explicitly disclose establishment of the authenticity of the chip and the data with the aid of a public key encryption technology. Trench discloses a system wherein a chip card contains a private key (Trench: Figure 2, item 104), which is used in a challenge along with a public key to determine if the chip card is authentic (Trench: paragraph 0026, lines 1-12). Burger and Trench are analogous arts as both use chip cards to authenticate a user. Trench uses this challenge system to assure that the chip card is authentic before letting the user proceed with a transaction (Trench: paragraph 0026, lines 10-11). This challenge-response using the private-public key technology could be used in the system of Burger after the biometric input is compared to authenticate the user. In the system of Burger, after the authentication of the user, the user identification data is read from the chip and sent to a gateway (Burger: column 6, lines 44-51). The gateway could then send a challenge to the user to verify that the chip is also authentic, as in the system of Trench, which using the method of Trench,

the user can use the stored private key to respond to the challenge to verify that the chip is also authentic and allow the transaction to proceed (Trench: paragraph 0026: lines 1-12). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the public-private encryption method of Trench into the system of Burger so that a merchant "can be assured that the user is the legitimate certificate holder and that the user certificate belongs to the user" (Trench: paragraph 0026, lines 8-11) and so that the merchant can "confidently accept the chip card from the user" (Trench: paragraph 0026, lines 11-12).

Claim 7 is rejected as applied above in rejecting claim 6. Furthermore, Burger discloses:

Carrier provided with a computer program according to claim 6 (column 5, lines 42-46), wherein the carrier is a smart card.

Claim 8 is rejected as applied above in rejecting claim 1. Furthermore, Burger discloses:

Document provided with machine-readable holder details and a chip, which chip is provided with a processing unit and memory connected thereto and an input/output unit (column 5, lines 50-58, column 6, lines 13-18: authentication done on board reader), wherein the memory contains biometric data on a holder (column 5, lines 32-26: user fingerprint information stored on chip), as well as data that have a predetermined relationship to the holder details (column 6, lines 45-51: wherein the

user identification memory (predetermined right) is used to determine if the user is able to gain entry), as well as instructions for making the processing unit carry out the following instructions:

transmission of the biometric data on the holder and the data from the memory to the system (column 5, lines 50-55: *compare input fingerprint with stored fingerprint data to determine if user is authentic*).

Burger does not explicitly disclose establishment of the authenticity of the chip and the data with the aid of a public key encryption technology. Trench discloses a system wherein a chip card contains a private key (Trench: Figure 2, item 104), which is used in a challenge along with a public key to determine if the chip card is authentic (Trench: paragraph 0026, lines 1-12). Burger and Trench are analogous arts as both use chip cards to authenticate a user. Trench uses this challenge system to assure that the chip card is authentic before letting the user proceed with a transaction (Trench: paragraph 0026, lines 10-11). This challenge-response using the private-public key technology could be used in the system of Burger after the biometric input is compared to authenticate the user. In the system of Burger, after the authentication of the user, the user identification data is read from the chip and sent to a gateway (Burger: column 6, lines 44-51). The gateway could then send a challenge to the user to verify that the chip is also authentic, as in the system of Trench, which using the method of Trench, the user can use the stored private key to respond to the challenge to verify that the chip is also authentic and allow the transaction to proceed (Trench: paragraph 0026:

lines 1-12). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the public-private encryption method of Trench into the system of Burger so that a merchant "can be assured that the user is the legitimate certificate holder and that the user certificate belongs to the user" (Trench: paragraph 0026, lines 8-11) and so that the merchant can "confidently accept the chip card from the user" (Trench: paragraph 0026, lines 11-12).

Claim 9 is rejected as applied above in rejecting claim 8. Furthermore, Burger discloses:

Document according to claim 8, wherein the document is a travel document (column 5, lines 43-46), wherein the smart card (document) could operate as a driver's license.

Claim 10 is rejected as applied above in rejecting claim 9. Furthermore, Burger discloses:

Document according to claim 9, wherein the chip is an integral part of the travel document (column 5, lines 43-46), wherein the smart card (document) could operate as a driver's license and is used for authenticating the holder.

Claim 11 is rejected as applied above in rejecting claim 8. Furthermore, Burger discloses:

Document according to claim 8, wherein the input/output unit is equipped for contact-free communication (column 4, lines 65-66), wherein the smart card can be contactless.

Claim 12 is rejected as applied above in rejecting claim 8. Furthermore, Burger discloses:

Document according to claim 8, wherein the chip is equipped as a transponder unit (column 4, lines 65-66), wherein the smart card can be contactless, which means that the RFID tag acts as a transponder.

Claim 15 is rejected as applied above in rejecting claim 9. Furthermore, Burger discloses:

Document according to claim 9, wherein the input/output unit is equipped for contact-free communication (column 4, lines 65-66), wherein the smart card can be contactless.

Claim 16 is rejected as applied above in rejecting claim 10. Furthermore, Burger discloses:

Document according to claim 10, wherein the input/output unit is equipped for contact-free communication (column 4, lines 65-66), wherein the smart card can be contactless.

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Claim 17 is rejected as applied above in rejecting claim 9. Furthermore, Burger discloses:

Document according to claim 9, wherein the chip is equipped as a transponder unit (column 4, lines 65-66), wherein the smart card can be contactless, which means that the RFID tag acts as a transponder.

Claim 18 is rejected as applied above in rejecting claim 10. Furthermore, Burger discloses:

Document according to claim 10, wherein the chip is equipped as a transponder unit (column 4, lines 65-66), wherein the smart card can be contactless, which means that the RFID tag acts as a transponder.

Claim 19 is rejected as applied above in rejecting claim 11. Furthermore, Burger discloses:

Document according to claim 11, wherein the chip is equipped as a transponder unit (column 4, lines 65-66), wherein the smart card can be contactless, which means that the RFID tag acts as a transponder.

8. Claims 3-4, 13-14, and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burger (U.S. Patent 6,219,439) in view of Trench (U.S. Patent Publication No. US 2005/0154877 A1) in further in view of Chen et al. (U.S. Patent 5,694,471).

Claim 3 is rejected as applied above in rejecting claim 1. Burger and Trench do not explicitly teach comparing the holder's details using a one-way function, with holder's details stored in the memory. Burger discloses that the user information is encrypted on the card but does not explicitly state that it the user information is subject to a one-way function. Chen discloses a system wherein a chip card stores issuer identification information and a key which it uses to perform a one-way hash function on the data (Chen: column 6, lines 50-54) and then the authentication unit performs its own checksum on the issuer identification number and compares the results to authenticate the user (Chen: column 7, lines 18-29). Burger discloses a key that is stored on the card, so this key can be used to perform the hash value on the user information to create a hash, which is then compared to a hash of the results at the gateway of Burger using the process of Chen. Burger, Trench, and Chen are analogous arts as all use chip cards for the purposes of authenticating a user. It would have been obvious to use the one-way hashing function of Chen to authenticate the user information in the system of Burger-Trench because the use of a one-way function because it "makes it impossible to work backwards to determine the checksum" (Chen: column 4, lines 9-14).

Claim 4 is rejected as applied above in claim 3. Furthermore, the system of Burger-Trench-Chen teaches that the one-way function is a hashing function (Chen: column 6,

lines 50-54), wherein a on-way hashing function is performed on the user identification information.

Claim 13 is rejected as applied above in rejecting claim 8. Burger and Trench do not explicitly teach that the predetermined relationship is based on hashing the holder's details. Burger discloses that the user information is encrypted on the card but does not explicitly state that it the user information is subject to a one-way function. Chen discloses a system wherein a chip card stores issuer identification information and a key which it uses to perform a one-way hash function on the data (Chen: column 6, lines 50-54) and then the authentication unit performs its own checksum on the issuer identification number and compares the results to authenticate the user (Chen: column 7, lines 18-29). Burger discloses a key that is stored on the card, so this key can be used to perform the hash value on the user information to create a hash, which is then compared to a hash of the results at the gateway of Burger using the process of Chen. Burger, Trench, and Chen are analogous arts as all use chip cards for the purposes of authenticating a user. It would have been obvious to use the one-way hashing function of Chen to authenticate the user information in the system of Burger-Trench because the use of a one-way function because it "makes it impossible to work backwards to determine the checksum" (Chen: column 4, lines 9-14).

Claim 14 is rejected as applied above in rejecting claim 2. Burger and Trench do not explicitly teach comparing the holder's details using a one-way function, with holder's

details stored in the memory. Burger discloses that the user information is encrypted on the card but does not explicitly state that it the user information is subject to a one-way function. Chen discloses a system wherein a chip card stores issuer identification information and a key which it uses to perform a one-way hash function on the data (Chen: column 6, lines 50-54) and then the authentication unit performs its own checksum on the issuer identification number and compares the results to authenticate the user (Chen: column 7, lines 18-29). Burger discloses a key that is stored on the card, so this key can be used to perform the hash value on the user information to create a hash, which is then compared to a hash of the results at the gateway of Burger using the process of Chen. Burger, Trench, and Chen are analogous arts as all use chip cards for the purposes of authenticating a user. It would have been obvious to use the one-way hashing function of Chen to authenticate the user information in the system of Burger-Trench because the use of a one-way function because it "makes it impossible to work backwards to determine the checksum" (Chen: column 4, lines 9-14).

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Claim 20 is rejected as applied above in rejecting claim 9. Burger and Trench do not explicitly teach that the predetermined relationship is based on hashing the holder's details. Burger discloses that the user information is encrypted on the card but does not explicitly state that it the user information is subject to a one-way function. Chen discloses a system wherein a chip card stores issuer identification information and a key which it uses to perform a one-way hash function on the data (Chen: column 6, lines

50-54) and then the authentication unit performs its own checksum on the issuer identification number and compares the results to authenticate the user (Chen: column 7, lines 18-29). Burger discloses a key that is stored on the card, so this key can be used to perform the hash value on the user information to create a hash, which is then compared to a hash of the results at the gateway of Burger using the process of Chen. Burger, Trench, and Chen are analogous arts as all use chip cards for the purposes of authenticating a user. It would have been obvious to use the one-way hashing function of Chen to authenticate the user information in the system of Burger-Trench because the use of a one-way function because it "makes it impossible to work backwards to determine the checksum" (Chen: column 4, lines 9-14).

Claim 21 is rejected as applied above in rejecting claim 10. Burger and Trench do not explicitly teach that the predetermined relationship is based on hashing the holder's details. Burger discloses that the user information is encrypted on the card but does not explicitly state that it the user information is subject to a one-way function. Chen discloses a system wherein a chip card stores issuer identification information and a key which it uses to perform a one-way hash function on the data (Chen: column 6, lines 50-54) and then the authentication unit performs its own checksum on the issuer identification number and compares the results to authenticate the user (Chen: column 7, lines 18-29). Burger discloses a key that is stored on the card, so this key can be used to perform the hash value on the user information to create a hash, which is then compared to a hash of the results at the gateway of Burger using the process of Chen.

Burger, Trench, and Chen are analogous arts as all use chip cards for the purposes of authenticating a user. It would have been obvious to use the one-way hashing function of Chen to authenticate the user information in the system of Burger-Trench because the use of a one-way function because it "makes it impossible to work backwards to determine the checksum" (Chen: column 4, lines 9-14).

Claim 22 is rejected as applied above in rejecting claim 11. Burger and Trench do not explicitly teach that the predetermined relationship is based on hashing the holder's details. Burger discloses that the user information is encrypted on the card but does not explicitly state that it the user information is subject to a one-way function. Chen discloses a system wherein a chip card stores issuer identification information and a key which it uses to perform a one-way hash function on the data (Chen: column 6, lines 50-54) and then the authentication unit performs its own checksum on the issuer identification number and compares the results to authenticate the user (Chen: column 7, lines 18-29). Burger discloses a key that is stored on the card, so this key can be used to perform the hash value on the user information to create a hash, which is then compared to a hash of the results at the gateway of Burger using the process of Chen. Burger, Trench, and Chen are analogous arts as all use chip cards for the purposes of authenticating a user. It would have been obvious to use the one-way hashing function of Chen to authenticate the user information in the system of Burger-Trench because the use of a one-way function because it "makes it impossible to work backwards to determine the checksum" (Chen: column 4, lines 9-14).

Claim 23 is rejected as applied above in rejecting claim 12. Burger and Trench do not explicitly teach that the predetermined relationship is based on hashing the holder's details. Burger discloses that the user information is encrypted on the card but does not explicitly state that it the user information is subject to a one-way function. Chen discloses a system wherein a chip card stores issuer identification information and a key which it uses to perform a one-way hash function on the data (Chen: column 6, lines 50-54) and then the authentication unit performs its own checksum on the issuer identification number and compares the results to authenticate the user (Chen: column 7, lines 18-29). Burger discloses a key that is stored on the card, so this key can be used to perform the hash value on the user information to create a hash, which is then compared to a hash of the results at the gateway of Burger using the process of Chen. Burger, Trench, and Chen are analogous arts as all use chip cards for the purposes of authenticating a user. It would have been obvious to use the one-way hashing function of Chen to authenticate the user information in the system of Burger-Trench because the use of a one-way function because it "makes it impossible to work backwards to determine the checksum" (Chen: column 4, lines 9-14).

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaveh Abrishamkar whose telephone number is 571-272-3786. The examiner can normally be reached on Monday thru Friday 8-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

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07/18/2007

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